Tyler Hasman

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WORK EXPERIENCE

Offworld Industries   May. 2022 – December. 2022
Junior Programmer   *Vancouver, BC*
- Working on Squad, a strategic online first-person shooter created in Unreal Engine 4.
- Overhauled gun audio system to be responsive and accurate.
- Removed legacy engine changes to assist in upgrading Squad to Unreal Engine 5.
- Improved vehicle pushing system to allow stuck vehicles to be recovered.
- Implemented props into the new Emote system (i.e. spawning a soccer ball during an emote).

The University of British Columbia   September. 2021 – April. 2022
Teaching Assistant   *Vancouver, BC*
- Taught students linear algebra, OpenGL; designed assignments for students to learn GLSL.

PERSONAL PROJECTS

Wizards
Lead Programmer / Game Designer / Creator   Game Website
- Online turn-based strategy game using a custom Java engine created with OpenGL.
- 40,000+ unique players and 370+ positive reviews as of November 2023.
- Over 200,000 matches five minutes or longer played in 2021.
- Monetized through cosmetics sold on the Steam Store — met initial goal of 1000$ within the first month.
- Game servers are hosted for players and are automatically created to meet player demand.

3D MMORPG Game Engine
Creator   Gameplay Video
- Online-multiplayer World of Warcraft-like MMO engine written in Java with OpenGL.
- Game data is separated from engine allowing designers to easily edit content.
- Custom world editor supports infinite terrain using chunks, similar to Minecraft.
- Mesh collision support using VHACD to simplify 3D models.
- Navigation mesh is generated ahead of time for NPC path finding.
- Cascaded shadow maps which allow high performance, excellent shadows at any distance.
- Demo game has about 2 hours of content which take the player and friends from levels 1 to 10.

Voxel Engine
Creator   GitHub Project
- Voxel Engine written in C++ with OpenGL.
- Terrain is infinitely generated using Perlin Noise and Voronoi Diagrams.
- Supports SSAO using Deferred Rendering.

EDUCATION

The University of British Columbia   2019 – 2023
Bachelor of Science, Computer Science   *Vancouver, BC*

SKILLS

Languages: Java, Python, C++, C, SQL (Postgres), JavaScript, C#, Lua, PHP
Tools: Git, Perforce, IntelliJ, Unity, Unreal Engine, JUnit